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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/754,093 | 01/03/2001 | Derrick I. Hisatake | 10559-371001/P10177 | 4131 |
| 20985 | 7590 | 11/10/2003 | EXAMINER | |
| FISH & RICHARDSON, PC 12390 EL CAMINO REAL SAN DIEGO, CA 92130-2081 | | | ROCHE, TRENTON J | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2124 | |

DATE MAILED: 11/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|---------------------------|----------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/754,093 | HISATAKE, DERRICK I. |
| | Examiner Trent J Roche | Art Unit 2124 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 03 January 2001.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-30 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-30 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 03 January 2001 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. _____ .

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4) Interview Summary (PTO-413) Paper No(s) _____ .

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____ .

DETAILED ACTION

1. Claims 1-30 have been examined.

Drawings

2. New corrected drawings are required in this application because the left margin of Figure 1 is not at least 2.5 cm. Applicant is advised to employ the services of a competent patent draftsperson outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Specification

Content of Specification

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.
- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.

Or alternatively, Reference to a "Microfiche Appendix": See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.

(e) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:

- (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
- (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."

(f) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.

(g) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.

(h) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.

(i) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further

Art Unit: 2124

segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).

- (j) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).
- (k) Sequence Listing, See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

3. It is noted that the specification does not contain element (f) from above. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 1-7, 9-16, 18-23 and 25-30 are rejected under 35 U.S.C. 102(a) as being anticipated by U.S. Patent 6,055,632 by Deegan et al.

Regarding claim 1:

Deegan et al teach:

- a method comprising sending an upgrade package over a computer network (“transferring the firmware to the non-volatile memory of the programmable controller system by way of the remote network connection.” in col. 3 lines 3-5)
- receiving the upgrade package in a network device (“receiving the firmware upgrade at a communication daughterboard of the programmable controller system...” in col. 3 lines 22-24)
- automatically upgrading internal software of a peripheral device installed in the network device using the upgrade package (“the firmware provider establishes a remote Ethernet link directly with the communication daughterboard, e.g., over the internet, and it is the firmware provider that conducts the firmware upgrade.” in col. 6 lines 24-28)

Regarding claim 2:

The rejection of claim 1 is incorporated, and further, Deegan et al teach recognizing the received package as an upgrade based on information contained therein (“the processor module must eventually...enter the special firmware upgrade mode...” in col. 7 lines 9-10. The fact that the system enters an upgrade mode means that the system has inherently recognized that the downloaded program is an upgrade, based on the contents of the file.)

Regarding claim 3:

The rejection of claim 1 is incorporated, and further, Deegan et al teach recognizing the received package as an upgrade package based on a filename extension associated with the package (Note rejection regarding claim 2. For the system to enter an upgrade mode, it must recognize the file as an upgrade, therefore inherently recognizes the file by checking the filename.)

Regarding claim 4:

The rejection of claim 1 is incorporated, and further, Deegan et al teach upgrading the internal software as claimed (“the firmware provider establishes a remote Ethernet link directly with the communication daughterboard, e.g., over the internet, and it is the firmware provider that conducts the firmware upgrade.” in col. 6 lines 24-28.)

Regarding claim 5:

The rejection of claim 4 is incorporated, and further, Deegan et al teach upgrading the peripheral device as claimed (“enter the special firmware upgrade mode...” in col. 7 line 10. Further, the contents of the upgrade package are parsed into a format suitable for the device, as shown in col. 8 lines 22-36)

Regarding claim 6:

The rejection of claim 5 is incorporated, and further, Deegan et al teach issuing a command to the peripheral device as claimed (“enter the special firmware upgrade mode...” in col. 7 line 10. For the system to have entered an upgrade mode, it must have inherently received a command from the host computer notifying the device of an available upgrade.)

Regarding claim 7:

The rejection of claim 5 is incorporated, and further, Deegan et al teach erasing contents of memory in the peripheral device as claimed (“the firmware upgrade contained in the random access memory

is burned into the non-volatile memory..." in col. 8 lines 50-51. This process inherently erases the contents of the memory before updating the firmware.)

Regarding claim 9:

Deegan et al teach:

- a system comprising a computer network, a network device coupled to the network, a peripheral device installed within the network device; wherein the network device comprises a processor configured to receive an upgrade package as claimed (Note Fig. 1 and 2)

Regarding claim 10:

The rejection of claim 9 is incorporated, and further, Deegan et al teach a processor as claimed (Note Fig. 1 item 22, the microprocessor is installed on the remote device, which controls the upgrading of the firmware once it is downloaded to the system.)

Regarding claims 11-13:

The rejection of claim 9 is incorporated, and further, claims 11-13 are rejected for the reasons set forth in connection with claims 2-4, respectively.

Regarding claim 14:

The rejection of claim 13 is incorporated, and further, claim 14 is rejected for the reasons set forth in connection with claim 5.

Regarding claims 15 and 16:

The rejection of claim 14 is incorporated, and further, claims 15 and 16 are rejected for the reasons set forth in connection with claims 6 and 7, respectively.

Regarding claim 18:

Deegan et al teach:

- a computer-readable medium that stores computer-executable instructions (“a computer system...and...a plurality of programmable controller modules...” in col. 11 lines 64-66)
- recognize a received package as an upgrade package intended for a peripheral device installed in a network device (“the processor module must eventually...enter the special firmware upgrade mode...” in col. 7 lines 9-10. The fact that the system enters an upgrade mode means that the system has inherently recognized that the downloaded program is an upgrade.)
- automatically upgrade internal software in the peripheral device using the upgrade package (“the firmware provider establishes a remote Ethernet link directly with the communication daughterboard, e.g., over the internet, and it is the firmware provider that conducts the firmware upgrade.” in col. 6 lines 24-28)

Regarding claims 19 and 20:

The rejection of claim 18 is incorporated, and further, claims 19 and 20 are rejected for the reasons set forth in connection with claims 2 and 4, respectively.

Regarding claim 21:

The rejection of claim 20 is incorporated, and further, claim 21 is rejected for the reasons set forth in connection with claim 5.

Regarding claims 22 and 23:

The rejection of claim 21 is incorporated, and further, claims 22 and 23 are rejected for the reasons set forth in connection with claims 6 and 7, respectively.

Regarding claim 25:

Deegan et al teach:

- a port for coupling the apparatus to a network, a peripheral device installed in the apparatus, a processor (Note Fig. 1 and the corresponding section of the disclosure)
- the processor is configured to receive an upgrade package through the port and automatically upgrade internal software in the peripheral device using the upgrade package (“the firmware provider establishes a remote Ethernet link directly with the communication daughterboard, e.g., over the internet, and it is the firmware provider that conducts the firmware upgrade.” in col. 6 lines 24-28)

Regarding claim 26:

The rejection of claim 25 is incorporated, and further, claim 25 is rejected for the reasons set forth in connection with claim 2.

Regarding claim 27:

The rejection of claim 26 is incorporated, and further, claim 27 is rejected for the reasons set forth in connection with claim 3.

Regarding claim 28:

The rejection of claim 25 is incorporated, and further, claim 28 is rejected for the reasons set forth in connection with claim 5.

Regarding claims 29 and 30:

The rejection of claim 28 is incorporated, and further, claims 29 and 30 are rejected for the reasons set forth in connection with claims 6 and 7, respectively.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 8, 17 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,055,632 to Deegan et al, in view of U.S. Patent 6,601,212 to Guha et al.

Regarding claim 8:

The rejection of claim 1 is incorporated, and further, Deegan et al do not teach sending a message indicating success or failure of the upgrade as claimed. Guha et al disclose in an analogous firmware

upgrading system sending a message indicating success or failure to the client computer ("If an error is found, an error message will be sent to the client computer...if an error is not found, the peripheral device sends a download successful message to the client computer..." in col. 4 lines 16-30). It would have been obvious to someone of ordinary skill in the art at the time the invention was made to implement the message indication capabilities of Guha et al in the firmware upgrading system of Deegan et al, implemented via the addition of instructional code to transmit messages, as this would ensure that the upgrade is completed successfully by enabling the host computer to attempt to resend the upgrade if a failed upgrade message is received in the system disclosed by Deegan et al.

Regarding claims 17 and 24:

Claims 17 and 24 recite a system and article for performing the method of claim 8, and are rejected for the reasons set forth in connection with claim 8.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trent J Roche whose telephone number is (703)305-4627. The examiner can normally be reached on Monday-Friday, 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (703)305-9662. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Application/Control Number: 09/754,093
Art Unit: 2124

Page 12

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

Trent J Roche
Examiner
Art Unit 2124

TJR

Hoang-Anh Tony Nguyen-Ba

**ANTONY NGUYEN-BA
PRIMARY EXAMINER**